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6. (AMENDED) The photometric measurement flow cell according to claim 1, wherein said stepped element is formed of BK7 optical glass

7. (AMENDED) The photometric measurement flow cell according to claim 1, wherein said stepped element is formed of sapphire optical glass

REMARKS

In the official action mailed on March 14, 2002, claims 1, 8, 11 and 15-19 were rejected by the Examiner under 35 U.S.C. 102 (b) as being anticipated by Dätwylet et al. (U.S. Patent 5,003,174). Applicants respectfully traverse this rejection and respectfully submit that the amended claims remaining in the application are not anticipated by the disclosure provided in Dätwylet. In particular, it should be recognized that Dätwylet discloses a flow cell having a stepped window that is accommodated within the flow cell by widening portions that are conical or tapered in shape so that the annular spaces accommodating O rings that are used for sealing exhibit a triangular cross-section. Specifically, Dätwylet suggests a sealing configuration whereby the sealing effect is not dependent on a particular force being exerted by the clamping ring upon the window and a corresponding counter-surface. Dätwylet specifically requires the stepped window be "connected with an adjoining recess (6) by a concentric portion (9) widening towards the outside...". Dätwylet specifically discloses and claims this conical or tapered relationship. See e.g. Dätwylet, claim 1.

The claimed subject matter of the Applicants' invention, unlike Dätwylet, provides for an element holder within the flow cell to receive a stepped element "wherein said element holder has a substantially flat sealing surface for receiving an element". The instant invention is specifically designed to exert pressure upon the element holder, the sealing surface of the stepped element and upon a sealing gasket. This configuration is contrary to that disclosed in Dätwylet, where the conical shape of the bore that receives the stepped element is specifically shaped so that "the sealing effect is not dependent on a particular force being exerted by the clamping ring upon the window and a corresponding counter-surface" (Dätwylet column 3 lines 48-50). The Applicants respectfully submit that Dätwylet does not disclose a flow cell "whereupon pressure exerted against said substantially planar sealing surface of said stepped element and said substantially planar sealing surface of said cell body cause said stepped element to be reliably sealed within said cell body".

Further, as has been clearly enunciated by the Federal Circuit, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. Lindermann Maschinenfabrik GMBH v. American Hoist and Derrick Co., 221 USPQ 481, 485 (Fed Cir. 1984). In the instant case the requirement of showing each and every element of Applicants' claimed invention to support anticipation has not been met. The cited reference fails to disclose or suggest those features claimed within the Applicants' instant application. Thus, Applicants respectfully submit that claims as amended pending in the application are patentably distinct over the cited references and withdrawal of this rejection based upon 35 USC 102 is respectfully requested.

The Examiner further rejected claims 2-7, 9-10, 12-14, 20 and 21 under 35 U.S.C. 103 (a) as being obvious over Dätwylet. Applicants respectfully traverse this rejection and respectfully submit that the claimed subject matter is not obvious in light of the disclosure provided in the patent to Dätwylet. As discussed above, Dätwylet discloses a flow cell having a stepped window that is accommodated within the flow cell by widening portions that are conical in shape so that the annular spaces accommodating O rings, which are used for sealing, exhibit a triangular cross-section. It is respectfully submitted that Dätwylet actually teaches away from the Applicants' claimed invention. In the instant invention the element holder of the flow cell is configured so that fastening bolts exert pressure upon the stepped element. This configuration is opposite to that disclose in Dätwylet and specifically taught away from by Dätwylet where the conical shape portion of the cell body accommodates an O-ring that avoids pressure upon the window element as the element is sealed within the body of the flow cell. It is respectfully submitted that Dätwylet does not suggest or teach a flow cell having a "substantially planar sealing surface of said cell body whereupon pressures exerted against said substantially planar sealing surface of said stepped element and said substantially planar sealing surface of said cell body cause said stepped element to be reliably sealed within said cell body". The Applicants respectfully request that this rejection be withdrawn.

CONCLUSION

Accordingly, it is believed that in view of the above amendments and remarks, all claims are in condition for allowance, and therefore reconsideration and allowance are earnestly solicited. If the Examiner feels that a telephone conference would expedite prosecution of this case, or resolve any remaining issues, the Examiner is invited to contact the undersigned at (617) 856-8369.

In accordance with 37 CFR 1.121(c)(1)(ii) a marked up version of the amended claims is attached as Appendix A.

Respectfully submitted,

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EXHIBIT A

Marked up Copy of Claims

1. (AMENDED) A photometric measurement flow cell comprising:

a cell body having a first end and a second end;

a fluidic channel allowing the passage of fluids, contain within said cell body;

an element holder contained within said first end of said cell body wherein said element holder has a substantially planar sealing surface for receiving an element;

a stepped element having a stem and a base, said stem having an end surface and said base having a substantially planar sealing surface;

said stepped element contained within said element holder and sealed within said cell body by a sealing gasket positioned between said substantially planar sealing surface of said stepped element and said substantially planar sealing surface of said cell body whereupon pressure from fastening bolts exerted against said substantially planar sealing surface of said stepped element and said substantially planar sealing surface of said cell body cause said stepped element to be reliably sealed within said cell body with said stem protuding into said fluidic channel creating a measurement path-length.

4. (AMENDED) The [P]photometric measurement flow cell according to claim 1, wherein said stepped element is formed of crown optical glass.

5. (AMENDED) The [P]photometric measurement flow cell according to claim 1, wherein said stepped element is formed of flint optical glass

6. (AMENDED) The [P]photometric measurement flow cell according to claim 1, wherein said stepped element is formed of BK7 optical glass

7. (AMENDED) The [P]photometric measurement flow cell according to claim 1, wherein said stepped element is formed of sapphire optical glass